

*Please provide the following information, and submit to the NOAA DM Plan Repository.*

### **Reference to Master DM Plan (if applicable)**

*As stated in Section IV, Requirement 1.3, DM Plans may be hierarchical. If this DM Plan inherits provisions from a higher-level DM Plan already submitted to the Repository, then this more-specific Plan only needs to provide information that differs from what was provided in the Master DM Plan.*

URL of higher-level DM Plan (if any) as submitted to DM Plan Repository:

## **1. General Description of Data to be Managed**

### **1.1. Name of the Data, data collection Project, or data-producing Program:**

2006 Southwest Florida Water Management District (SWFWMD) Lidar: North District

### **1.2. Summary description of the data:**

This data set is one component of a digital terrain model (DTM) for the Southwest Florida Water Management District's

FY2006 Digital Orthophoto (B089) and LiDAR Project (L470/L471), encompassing approximately 1,216 square miles across

Citrus and Sumter counties. The 2006 LiDAR dataset is comprised of 3-D masspoints delivered in the LAS file format

based on the District's 5,000' by 5,000' grid (1,356 cells). The other DTM component is 2-D and 3-D breakline features

in the ESRI ArcGIS Personal Geodatabase format. In accordance with the 2006 SWFWMD Topographic Database Design,

the following breakline features are contained within the database: closed water bodies (lakes, reservoirs, etc)

as 3-D polygons; linear hydrographic features (streams, canals, swales, embankments, etc) as 3-D breaklines;

coastal shorelines as 3-D linear features; edge of pavement road features as 3-D breaklines; soft features

(ridges, valleys, etc.) as 3-D breaklines; obscured vegetation polygons as 2-D polygons; overpasses and bridges

as 3-D breaklines; 1-foot contours for visualization purposes; and island features as 3-D polygons. This data falls

in Citrus and Sumter Counties.

Intensity values, or the measure of reflectance of the laser are also captured.

Breakline features were captured to develop a hydrologically correct DTM. Contours (1-foot) were generated from

the DTM that meet the National Map Accuracy Standards for 2-foot contours (FEMA specifications). Bare earth LiDAR

masspoint data display a vertical accuracy of at least 0.3-foot root mean square error (RMSE) in open unobscured areas

Original contact information:

Contact Name: Mapping and GIS Section

Contact Org: Southwest Florida Water Management District

Phone: 352.796.7211

**1.3. Is this a one-time data collection, or an ongoing series of measurements?**

One-time data collection

**1.4. Actual or planned temporal coverage of the data:**

2006-03-05

**1.5. Actual or planned geographic coverage of the data:**

W: -82.73904, E: -81.9411, N: 29.06432, S: 28.29512

**1.6. Type(s) of data:**

*(e.g., digital numeric data, imagery, photographs, video, audio, database, tabular data, etc.)*

**1.7. Data collection method(s):**

*(e.g., satellite, airplane, unmanned aerial system, radar, weather station, moored buoy, research vessel, autonomous underwater vehicle, animal tagging, manual surveys, enforcement activities, numerical model, etc.)*

**1.8. If data are from a NOAA Observing System of Record, indicate name of system:**

**1.8.1. If data are from another observing system, please specify:**

**2. Point of Contact for this Data Management Plan (author or maintainer)**

**2.1. Name:**

NOAA Office for Coastal Management (NOAA/OCM)

**2.2. Title:**

Metadata Contact

**2.3. Affiliation or facility:**

NOAA Office for Coastal Management (NOAA/OCM)

**2.4. E-mail address:**

coastal.info@noaa.gov

**2.5. Phone number:**

(843) 740-1202

**3. Responsible Party for Data Management**

*Program Managers, or their designee, shall be responsible for assuring the proper management of the data produced by their Program. Please indicate the responsible party below.*

**3.1. Name:****3.2. Title:**

Data Steward

**4. Resources**

*Programs must identify resources within their own budget for managing the data they produce.*

**4.1. Have resources for management of these data been identified?****4.2. Approximate percentage of the budget for these data devoted to data management (specify percentage or "unknown"):****5. Data Lineage and Quality**

*NOAA has issued Information Quality Guidelines for ensuring and maximizing the quality, objectivity, utility, and integrity of information which it disseminates.*

**5.1. Processing workflow of the data from collection or acquisition to making it publicly accessible**

*(describe or provide URL of description):*

Process Steps:

- 2007-01-05 00:00:00 - The LiDAR data was acquired using a Leica ALS50 from an altitude of 2,400' above ground level to provide an nominal ground sample distance of 2.4-feet. The scanner field of view was 28-degrees, and the scan rate was 46-hertz. First and last return data was collected along with the signal return intensity. A total of 278 flights of LiDAR data were acquired. Flight lines were flown with a 30% sidelap, providing a line-to-line swath width of 957-feet. Thirty (30) Two redundant airborne GPS bases stations were utilized during the data acquisition with maximum line-of-sight distance between the base station and aircraft of 20-km. The LiDAR data was reduced using Grafnav (Waypoint Consulting) for GPS post-processing, PosProc (Applanix Crop) for IMU processing, ALS50 Post Processor (LH Systems) to initial LiDAR processing, TerraScan (Terrasolid) for initial point classification, and proprietary Woolpert developed software for refining the point

classification and QC. The LAS files contain 5 classifications: 1 = unclassified; 2 = ground; 9 = water; and 10 = photogrammetric mass points and 11=swamp/wetland points. The class 1 consists of all points not on the ground. Class 2 consists of bare earth points. Class 9 points are those points falling within lake/pond polygons. Class 10 consists of supplementary mass points that were photogrammetrically compiled on points features such as peaks or pits, and they were created to maintain the accuracy of the DTM. Class 11 consists of points within swamps and/or wetlands polygons classified as ground. For a complete description of survey methods, processing methods, software, system parameters, and accuracy analysis, see the Florida MTS Report of Specific Purpose Survey, North District LiDAR DTM Project (L470/L471), dated January 2007.

- Metadata imported.

- 2008-01-01 00:00:00 - The NOAA Office for Coastal Management (OCM) received the the files in LAS format. The files contained Lidar elevation measurements. The data was in Florida State Plane Projection and NAVD88 vertical datum. OCM performed the following processing to the data to make it available within the Digital Coast Data Access Viewer (DAV): 1. The data were converted from Florida State Plane West coordinates to geographic coordinates. 2. The data were converted from NAVD88 (orthometric) heights to GRS80 (ellipsoid) heights using Geoid03. 3. The LAS data were sorted by latitude and the headers were updated.

**5.1.1. If data at different stages of the workflow, or products derived from these data, are subject to a separate data management plan, provide reference to other plan:**

**5.2. Quality control procedures employed (describe or provide URL of description):**

## 6. Data Documentation

*The EDMC Data Documentation Procedural Directive requires that NOAA data be well documented, specifies the use of ISO 19115 and related standards for documentation of new data, and provides links to resources and tools for metadata creation and validation.*

**6.1. Does metadata comply with EDMC Data Documentation directive?**

No

**6.1.1. If metadata are non-existent or non-compliant, please explain:**

Missing/invalid information:

- 1.6. Type(s) of data

- 1.7. Data collection method(s)

- 3.1. Responsible Party for Data Management

- 4.1. Have resources for management of these data been identified?

- 4.2. Approximate percentage of the budget for these data devoted to data management

- 5.2. Quality control procedures employed

- 7.1. Do these data comply with the Data Access directive?
- 7.1.1. If data are not available or has limitations, has a Waiver been filed?
- 7.1.2. If there are limitations to data access, describe how data are protected
- 7.4. Approximate delay between data collection and dissemination
- 8.1. Actual or planned long-term data archive location
- 8.3. Approximate delay between data collection and submission to an archive facility
- 8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?

**6.2. Name of organization or facility providing metadata hosting:**

NMFS Office of Science and Technology

**6.2.1. If service is needed for metadata hosting, please indicate:****6.3. URL of metadata folder or data catalog, if known:**

<https://www.fisheries.noaa.gov/inport/item/50024>

**6.4. Process for producing and maintaining metadata**

*(describe or provide URL of description):*

Metadata produced and maintained in accordance with the NOAA Data Documentation Procedural Directive: [https://nosc.noaa.gov/EDMC/DAARWG/docs/EDMC\\_PD-Data\\_Documentation\\_v1.pdf](https://nosc.noaa.gov/EDMC/DAARWG/docs/EDMC_PD-Data_Documentation_v1.pdf)

**7. Data Access**

*NAO 212-15 states that access to environmental data may only be restricted when distribution is explicitly limited by law, regulation, policy (such as those applicable to personally identifiable information or protected critical infrastructure information or proprietary trade information) or by security requirements. The EDMC Data Access Procedural Directive contains specific guidance, recommends the use of open-standard, interoperable, non-proprietary web services, provides information about resources and tools to enable data access, and includes a Waiver to be submitted to justify any approach other than full, unrestricted public access.*

**7.1. Do these data comply with the Data Access directive?**

**7.1.1. If the data are not to be made available to the public at all, or with limitations, has a Waiver (Appendix A of Data Access directive) been filed?**

**7.1.2. If there are limitations to public data access, describe how data are protected from unauthorized access or disclosure:**

**7.2. Name of organization of facility providing data access:**

NOAA Office for Coastal Management (NOAA/OCM)

**7.2.1. If data hosting service is needed, please indicate:**

**7.2.2. URL of data access service, if known:**

<https://coast.noaa.gov/dataviewer/#/lidar/search/where:ID=65>

[https://coast.noaa.gov/htdata/lidar1\\_z/geoid18/data/65](https://coast.noaa.gov/htdata/lidar1_z/geoid18/data/65)

**7.3. Data access methods or services offered:**

This data can be obtained on-line at the following URL:

<https://coast.noaa.gov/dataviewer>

;

**7.4. Approximate delay between data collection and dissemination:**

**7.4.1. If delay is longer than latency of automated processing, indicate under what authority data access is delayed:**

**8. Data Preservation and Protection**

*The NOAA Procedure for Scientific Records Appraisal and Archive Approval describes how to identify, appraise and decide what scientific records are to be preserved in a NOAA archive.*

**8.1. Actual or planned long-term data archive location:**

*(Specify NCEI-MD, NCEI-CO, NCEI-NC, NCEI-MS, World Data Center (WDC) facility, Other, To Be Determined, Unable to Archive, or No Archiving Intended)*

**8.1.1. If World Data Center or Other, specify:****8.1.2. If To Be Determined, Unable to Archive or No Archiving Intended, explain:****8.2. Data storage facility prior to being sent to an archive facility (if any):**

Office for Coastal Management - Charleston, SC

**8.3. Approximate delay between data collection and submission to an archive facility:****8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?**

*Discuss data back-up, disaster recovery/contingency planning, and off-site data storage relevant to the data collection*

**9. Additional Line Office or Staff Office Questions**

*Line and Staff Offices may extend this template by inserting additional questions in this section.*